PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau

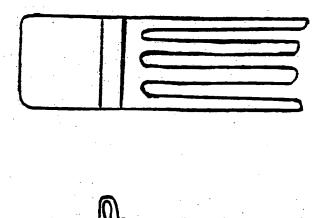


INTERNATIONAL APPLICATION PUBLICATION

(51) International Patent Classification ⁶ : A63B 57/00	A1	(11) International Publication Number: WO 96/22131 (43) International Publication Date: 25 July 1996 (25.07.96)
(21) International Application Number: PCT/NOS (22) International Filing Date: 16 January 1996 (1	·	1 (81) Designated States: AU, BR, CA, CN, CZ, FI, JP, KP, KR, MX, NZ, PI, BU, SG, SI, SK, US, FI, JP, KP, KR,
(30) Priority Data: 950181 18 January 1995 (18.01.95) (71) Applicant (for all designated States except US): INTERNATIONAL LTD. A.S [NO/NO]; Gran, Ytre Enebakk (NO).	NO MITCH N-1914	With international search report. In English translation (filed in Norwegian).
(72) Inventor; and (75) Inventor/Applicant (for US only): RYDGREN, Jan [N Gran, N-1914 Ytre Enebakk (NO).	O/NOJ;	
74) Agent: LASSEN, Egil; Actio-Lassen a.s, P.O. Box 14, Kokstad (NO).	N-5061	
4) Title: GOLF TOOL		

(57) Abstract

Device, so-called "green fork", which may be brought by a golfer, in order to conveniently and satisfactorily repair ball scars or indentations, caused by golf balls landing in a golf course's green, so that the green surface is kept even thout indentations or ridges which may prevent for precision playing. The device or "green fork" (10) includes a handle (12) and a fork" (10) includes a handle (12) and a fork (14) with at least three extendible prongs (16, 18, 20) where the centre prong (18) is somewhat shorter than the outer prongs (16, 20) and is forming an outwardly bent curve behind these. In a modified version according to the invention the "grapen fork" ing to the invention, the "green fork" includes two outer prongs (16, 20) and two inner prongs (18, 19) of same design as previously described.



FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AM	Armenia	GB	United Kingdom	MW	Malawi
-AT	Austria	GE	Georgia	MX	Mexico
AU	Australia	GN	Guinea	NE	Niger
ВВ	Barbados	GR	Greece	NL	Netherlands
BE	Belgium	HU	Hungary	NO	Norway
BF	Burkina Faso	IE	Ireland	NZ	New Zealand
BG	Bulgaria	İT	Italy	PL	Poland
BJ	Benin	JP	Japan	PT	Portugal
BR	Brazil	KE	Кепуа	RO	Romania
BY	Belarus -	KG	Kyrgystan	RU	Russian Federation
CA	Canada	KP	Democratic People's Republic	SD	Sudan
CF	Central African Republic		of Korea	SE	Sweden
CG	Congo	KR	Republic of Korea	SG	Singapore
СН	Switzerland	KZ	Kazakhstan	SI	Slovenia
CI	Côte d'Ivoire	LI	Liechtenstein	SK	Slovakia
CM	Cameroon	LK	Sri Lanka	SN	Senegal
CN	China	LR	Liberia	SZ	Swaziland
CS	Czechoslovakia	LT	Lithuania	TD	Chad
. cz	Czech Republic	LU	Luxembourg	TG	Togo
DE	Germany	LV	Listvia .	TJ.	Tajikistan
· DK	Denmark	MC	Monaco	11	Trinidad and Tobago
EE	Estonia	MD	Republic of Moldova	UA	Ukraine
ES	Spain	MG	Madagascar		
FI	Finland	ML	Mali	UG	Uganda
FR	France	MIN	Mongolia	US UZ	United States of America
GA	Gabon	MOR	Mauritania	VN	Uzbekistan
		MLK	Press Raine	VI4	Viet Nam

1

GOLF TOOL

This invention relates to a device eliminating ball scars or ball marks, caused by golf balls falling down on a golf course's green.

A ball scar occurs when a golf ball lands on the golf course's green. The size of the scar depends on the golf ball's velocity and the angle at impact as well as on the green's moisture content. A ball at high orbit may impact almost 90° angle and at a velocity of upto 250 km/h, thereby that leaving an indentation formed like the golf ball. This scar makes an unevenness on the green, which will make precision playing difficult. In addition, the green will be depressed in the impact area, and thereby wither, leaving a brown patch, unless the ball scar is eliminated immediately.

A condition for using a golf course, is that the player has attended theoretical and practical courses, which also includes the players obligations, among them the obligation to eliminate indentations or ball scars occurring on the green, when the golf ball impacts. Every golf player is therefore obliged to bring a suitable tool, like the "green fork", for executing these repairs.

For a number of years tools of various types have been used. However, all types have had about the same design and have proved to be insufficient for the task, being elimination of ball scars in a quick and easy way, so that the

green surface is kept even and free from indentations and patches of withered, brown green.

US-pat. no. 4.984.790 describes a tool for eliminating golf ball scars, which are caused by a golf ball landing on a green. The tool comprises a base part with three extendible prongs, of which the centre prong is the longest. When used, the tool is inserted into the green, whereby the base part is forced down so that the prongs are forced upwards, to loosen up the depressed green and to even out the indentation. It is unlikely that such repairs may be accomplished successfully in one single process, because the tool necessarily must be inserted from several sides, before the desired result has been achieved; accordingly, the repair takes unnecessarily long time, and several insertions into the green is harmful for the green.

The aim of the invention is to relieve the abovementioned draw-backs mentioned by a device, so-called "green fork" of a new and improved type, with distinctive features as stated, in the characterizing part of claim 1, mentioned below.

The "green fork", according to the invention, has been made as prototypes that have beentested with a view to choice of final design, material and cost effective manufactoring.

Reference is made to the enclosed drawings, of which:

3

- Fig. 1 shows a front plan view of a "green fork" of the invention
- Fig. 2 shows a side plan view of a "green fork" of the invention
- Fig. 3 5 is a side plan view according to figure 1, during insertion into the green surface.
- Fig. 6 is a side plan view of the "green fork" with the handle bent down and the prongs upwards during application of the lever-principle.
- Fig. 7 is a side plan view of the "green fork" during retraction.
- Fig. 8 is a view of a modified "grenn fork" version with four prongs.

A flat shaped device 10, so-called "green fork" according to the invention, manufactured from suitable material, for instance, steel, comprises a handle 12 and a fork 14 with at least three extendible prongs 16, 18 and 20, where the centre prong 18 is somewhat shorter than the outer prongs 16 and 20, making a outwards curve behind these. At the passage between the handle 12 and the fork 14 an improved, outwardly bent handle grip. The outer end of the handle 12 is supplied with a hole 24 for suspension of the device.

The mode of operation is as follows. When repairing a golf ball scar the "green fork" 10 is inserted into the green surface as shown in fig. IV-VII, whereby the prongs 16, 18 and 20 take the positions as shown, with the centre prong 18 placed in oblique position below the indentation 26. When the handle 12 is being tilted downwards as shown in fig. VIII, the prongs 16 - 20 are bent upwards with the centre prong 18 in near horizontal position underneath the bottom of the indentation 26, which is thereby being pushed upwards and the depressed green is being loosened, air is supplied,

WO 96/22131 PCT/NO96/00011

4

preventing withering. When the device 10 is being retracted from the green, the centre prong 18 will keep its near horizontal position underneath the bottom of the indentation 26, which thereby is lifted additionally, practically to the position it had before the ball's impact.

The invention also includes a "green fork" in a modified version, as shown in figure 8, with four prongs, of which two outer prongs 16 and 20 and two inner prongs 18 and 19, but otherwise corresponding to the earlier described version, with same function as the former.

As described above, are the invention development of so-called "green forks", of new and improved design, which will make it possible to repair ball scars or indentations caused by golf balls, in a quick and easy way.

PATENT CLAIMS

- 1. Device, a so-called "green fork" (10), for repairing golf ball scars or indentations on a golf course's green, including a handle 12 and a fork 14 with three prongs (16, 18, 20) characterized in that the centre prong is somewhat shorter than the outer prongs (16, 20) and is forming a outwards curve behind these.
- 2. Device in accordance whit claim 1., characterized in comprising four prongs, of which two outer prongs (16, 20) and two inner prongs (18, 19) of the same design as den previously mentioned device (10).

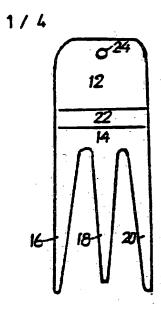


FIG. 1

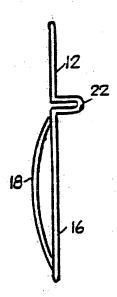


FIG. 2

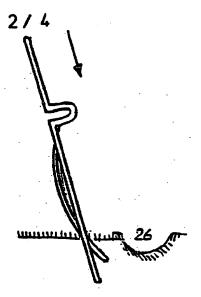
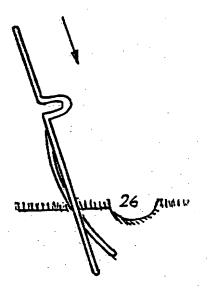


FIG. 3



F15. 4

3/4

FIG. 5

milion was and 26 distribution

FIG. 6

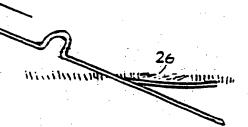
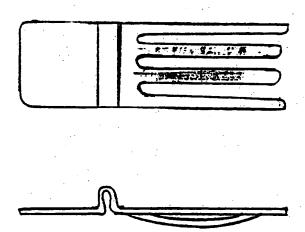


FIG. 7

4/4

FIGUR 8



INTERNATIONAL SEARCH REPORT

International application No. PCT/NO 96/00011

A. CLA	ASSIFICATION OF SUBJECT MATTER		
TDCC	462D 57700		
According	A63B 57/00 g to International Patent Classification (IPC) or to be	th national classification and IPC	
	LDS SEARCHED		
Minimum	documentation conrched (chanification system follows	ed by classification symbols)	
IPC6:	A63R		•
			
	tation searched other than minimum documentation to	o the extent that such documents are included	in the fields searched
SE,UK	FI,NO classes as above		•
Electronic	data base consulted during the international search (n	name of data base and, where precticable, some	sh terms used)
	$\boldsymbol{\cdot} = \boldsymbol{\cdot} = $		
C. DOC	UMENTS CONSIDERED TO BE RELEVAN	т	
Category	Gtation of document, with indication, where	appropriate, of the relevant passages	Relevant to claim N
A .	US 3763515 A (T.E. VOSS), 9 Oc (09.10.73)	tober 1973	1-2
:			
		•	1
Α .	US 3870299 A (J.M. HOWE), 11 M	larch 1975 (11.03.75)	1-2
•	1.0		
Α	US 4063731 A (B.E. KITAY), 20 (20.12.77)	December 1977	1-2
			
A	US 4315624 A (C.E. BUCKMAN), 1 (16.01.82)	6 January 1982	1-2
	L		
Furth	ner documents are listed in the continuation of B	lox C. See patent family annex	
Special	entegories of cited documents:	To lover document published ofter the inte	motional filing date or asia
	ant defining the gament state of the ort which is not considere f porticular relevance	the principle or theory underlying the	2000 but aied in underston
L" docum	ocument but published on or other the international filling does ent which may throw doubts on priority claim(s) or which is	e "X" document of preticular relevance the	drimod insunting
	exchish the publication date of another citation or other reason (as specifical)	step then the document is triben alone	
	ant referring to on oral disclosure, use, exhibition or other	"Y" document of particular relevance: the considered to involve an inventive step	when the document is
P docume	ent published prior to the international filing date but later the rity date claimed		documents, such combination of the combination of t
ate of the	actual completion of the international search	Date of mailing of the international se	
		11 -04- 1998	
April		0 0 00 1350	
	mailing address of the ISA/ Patent Office	Authorized officer	
ox 5055	S-102 42 STOCKHOLM	Johan Löfstedt	
,	io. +46 8 666 02 86	I BURSO I OYEYARD	

INTERNATIONAL SEARCH REPORT

International application No.
PCT/NO 96/00011

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim N
A	US 4386774 A (C.E. BUCKMAN), 7 June 1983 (07.06.83)	1-2
		
A [US 4984790 A (J.C. DOWDY ET AL), 15 January 1991 (15.01.91)	1-2
		
:		
		-
		· 4
		• ,
		ŕ
		,
*		
.		•

International application No.

INTERNATIONAL SEARCH REPORT

Form PCT/ISA/210 (patent family annex) (July 1992)

Publication Pateb	rent family Publication namber(s) date			Publication Asia	sarch report	a ni basio	
		 		HONE	EL/01/60	91989 / 8	-Y-SN
			+	NONE	17/03/12	3870299	- Y -SN
				HONE	///SI/0S	167E30A	-A-2U
£8/9	0/40	1 ///9	864	-A-SU	16/01/82	4312624	-V-SI
28/2	0/91	295	164	- A- 2U	£8/90/ Z 0	7 4298E\$	- V -SN
				MONE	16/10/91	0674864	-A-2U